REMARKS

Applicant wishes to thank the Examiner for the detailed remarks. Claims 1, 3-24, 26, and 27 are pending.

Claims 1, 3-24, 26, and 27 are rejected under 35 USC §103(a) as being unpatentable over *Kish* (5,813,292) in view of *Bossler* (5,233,886). Applicant respectfully traverses these rejections as there is absolutely no teaching, suggestion, or motivation to modify *Kish* in view of *Bossler* as proposed.

The Examiner admits that "*Kish* does not explicitly teach a floating pinion gear driven by a radially unsupported pinion shaft, which provides a flexibility to allow the floating pinion axis of rotation to be displaceable off the common curved line to split a load between the first spur gear and the second spur gear." As discussed in Applicant's last response, *Kish* is assigned to the assignee of the present application. *Kish*, although effective, provides rigid precisely machined gear interfaces. As admitted by the Examiner and as discussed by Applicant, *Kish* neither discloses nor suggests a radially unsupported pinion shaft.

Bossler discloses a flexible coupling 28 which permits the pinion shaft and the pinion to float, both axially and radially, so as to provide automatic and a flexible balancing between the two torques transferred respectively from the pinion to the two-faced gears with which it is engaged. [See col. 3, lines 60-64.] As also previously discussed, the *Bossler* flexible coupling 28 is mounted to only one of many NON-FLOATING pinion shaft mounted spur gears 60 which are located between the common face gears such that the "floating" pinion shaft is constrained. In other words, *Bossler* permits both axial and radial floatation from the engine (now shown) which, at least, vibrates during operation. The flexible coupling 28 accommodates this engine vibration and is common in the art

The Examiner suggests that *Bossler* inherently provides said floating pinion axis of rotation displaceable off said common curve line to split a load between said first spur gear and second spur gear. This supposition is supposedly supported by the Examiner's argument that it would have been obvious to one of ordinary skill in the art at the time this invention was made to recognize the importance and advantage of being able to evenly distribute load between an input floating pinion and two of its meshing spur gears. However, this motivation is not applicable to the engine

mounting location of the flexible coupling 28. Although it is sometimes advantageous to evenly distribute load between an input floating pinion and two of its meshing spur gears, *Bossler* discloses only the single flexible coupling 28 which is connected to the engine output shaft 26. The gear is actually constrained by both the paired face gear 90 degree arrangement as well as a plurality of non-floating spur gears 92 and shaft 94. That is, *Bossler* teaches only a relatively constrained spur gear type pinion 22 which is connected to an engine output shaft 26 to accommodate engine vibration.

As discussed above and as admitted by the Examiner, *Kish* makes no mention whatsoever of a floating pinion gear driven by a radially unsupported pinion shaft. *Bossler*, at best, discloses an engine output shaft 26 that is supported by a flexible coupling 28. Simply, there is no motivation whatsoever to combine *Kish* with *Bossler*. The only motivation to make this combination as proposed is by following the knowledge disclosed within the present invention. This is impermissible usage of hindsight in an attempt to recreate Applicant's device. The claims are properly allowable for this reason alone.

It should be noted that *Kish* is assigned to the assignee of the present application. *Kish*, although effective, provides rigid precisely machined gear interfaces. The only gear movement *Kish* discloses is the relative axial movement between gears 116L/R and 114L/R in response to movement between the double helical bull gear 108 and the double helical bull pinions 118L/R. This is why gears 116L/R and 114L/R are spurs gears – they are precisely retained, yet permit axial movement therebetween. That is, pinion gear 114L/R must be radially supported and the axis of rotation cannot be radially displaceable. *Bossler*, however, discloses that: "The flexible coupling 28 ***permits the pinion shaft and the pinion to float, both axially and radially***, so as to provide automatic and flexible balancing between the two torques transferred respectively from the pinion to the two face gears with which it is engaged." *[See col. 3, lines 60-64; emphasis added.]*

Notably also, the *Bossler* flexible coupling 28 is mounted to only one of many non-floating pinion shaft mounted spur gears 60 which are located between the face gears such that the "floating" pinion shaft is effectively constrained. That is, *Bossler* permits both **axially and radial flotation** – which are only constrained due to the paired face gear 90 degree arrangement of *Bossler*. ***Simply replacing the axially fixed pinion gear of Kish with a floating pinion gear***

as disclosed in Bossler would not result in an operative gearbox since there would be no mechanism for retaining the floating pinion gear in place. It is improper to modify the base reference in such a way that it ruins the goal or function of the base reference. The Examiner's proposed modification would do so by permitting radial movement in the axially movable but otherwise rigid and precisely machined gear interfaces taught by *Kish*.

Furthermore, even if the combination were properly made, there are differences between the claimed invention and the teachings of the cited references so that the combination does not meet the limitations of Applicant's claims.

Claims 1, 8 and 12 recite that the first gear axis of rotation, the second gear axis of rotation and the pinion gear axis of rotation located along a common line, the pinion gear axis of rotation displaceable off the common line. *Kish*, even under the Examiner's interpretation, fails to disclose or suggest that the axes of rotation of the pinion and spur gears of gear train branches 106L/R are along a common line as evidenced in *Kish* Figure 2 below:

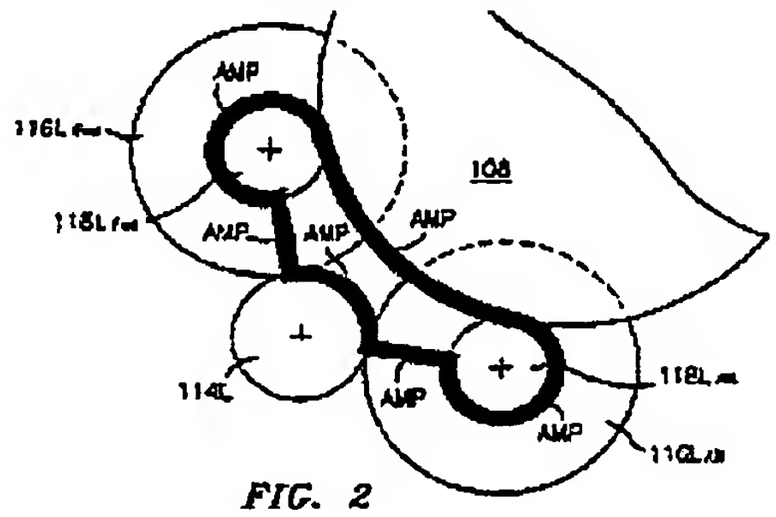

FIG. 2

Thus, even if the combination is proper – which it is not – the claims are properly allowable.

At best, *Kish* discloses input shafts 104R and 104L. The Examiner's proposed combination even if proper - - which it is not - - would at best only suggest the incorporation of the flexible coupling 28 of *Bossler* into the input shafts 104R, 104L of *Kish*. However, this is not Applicant's claimed invention. Neither reference alone or in combination discloses, suggests, or teaches a floating pinion axis of rotation, said first spur gear axis of rotation, and said second spur gear axis of rotation located along a common line, said floating pinion axis of rotation displaceable off said common line to split a load between said first spur gear and said second spur gear as recited in

Applicant's claims. Thus, even if the combination were proper, the proposed combination will not meet the limitation of Applicant's claims.

Applicant respectfully submits that this case is in condition for allowance. If the Examiner believes that a teleconference will facilitate moving this case forward to being issued, Applicant's representative can be contacted at the number indicated below.

Respectfully Submitted,

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